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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,719	05/10/2001	Robert George Emberty	TUC920000098US1	5200

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06/12/2003

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EXAMINER

LEE, JOHN D

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 06/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/852,719

Examiner

John D. Lee

Applicant(s)

EMBERTY ET AL

Art Unit

2874

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 12-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

This Office action is responsive to applicant's amendment submitted by Certificate of Mailing on May 12, 2003. The amendment has obviated the previously applied objection to the claims, as well as the previously applied rejection based upon the second paragraph of 35 U.S.C. § 112.

The single sheet of drawing filed on May 12, 2003, is acceptable.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,777,765 to Deloddere et al. Deloddere et al discloses an optical delaying unit which is designed to, inter alia, emulate an optical fiber by simulating the delay and attenuation that an optical signal would have within the optical fiber. Although the word "digital" is not used in the reference, the Deloddere et al unit operates on binary communication signals and is therefore clearly a digital device. The person of ordinary skill in the art would obviously have recognized that the optical signal received by the Deloddere et al unit and the electrical signal to which it is transformed are digitally-encoded signals, having transmission codes and data codes of particular lengths. Other than this non-stated feature, the method described by Deloddere et al is essentially the same as the emulation method being claimed. The optical signal is received, transformed to an electrical signal, and delayed for a predetermined time. The electrical signal is then reconverted to an optical signal which has been delayed by the information transfer time of an optical fiber to be emulated. Notice that serial/parallel converters comprise a part of the

Deloddere et al delaying unit. The choice of specific values for the lengths of the transmission codes and data codes of the digitally-encoded signals in Deloddere et al would certainly have been obvious to the person of ordinary skill in the art.

Claims 1-11 are allowed. As pointed out in the previous Office action, these claims are patentably distinct from Deloddere et al and all other prior art of record because an optical fiber emulator comprising an optical *demodulator*, a digital shift register, and an optical *modulator*, as specified in these claims, is neither disclosed nor suggested.

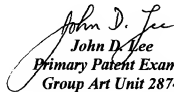
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 5,812,530 to Fernandez et al shows a binary network emulator which utilizes an optical delay line.

Applicant's arguments filed May 12, 2003, with respect to claims 12-19, have been fully considered but they are not deemed to be persuasive. Applicant argues that Deloddere et al is different from the claimed emulator in that the reference samples the *amplitude* of the electrical signal produced from the input optical signal in order to produce a digital word representative of the *amplitude* of the sample. This means, according to applicant, that the signals are always treated as if they were analog signals. The Examiner has diligently read and studied the Deloddere et al reference and cannot find the basis for applicant's allegation. In fact, the word *amplitude* is not even mentioned in the reference. It remains the Examiner's position that the electrical word or signal produced in Deloddere et al has a digital code corresponding to, or based on, the code of the input digital optical signal. The argument is not persuasive and the previously applied rejection is maintained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and an advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (703) 308-4886. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (703) 308-0956, to the technical support staff supervisor (Team 2) at telephone number (703) 308-3072, or to the Technology Center 2800 Customer Service Office at telephone number (703) 306-3329.


John D. Lee
Primary Patent Examiner
Group Art Unit 2874